## Notes on Recent and Fossil Neritidae.

## 9. On the Alleged Occurrence of Neritina cf. N. donovana Récluz in the Vigo Formation, Luzon, Philippines

BY

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RECENTLY POPENOE & KLEINPELL (1978) mentioned Neritina cf. Neritina donovana Récluz, 1843, as commonly occurring in the blue-gray marls cropping out on the right bank of the Bahay River, 1219 m (4000 ft) S 25°E of the mouth of Apad Creek, and about 366 m (1200 ft) upstream from the abandoned oil well on the left bank of the river, Bondoc Peninsula, Tayabas Province, Philippines. These marls belong to the so-called Vigo formation and are placed in the Late Pliocene or Early Pleistocene.

The supposed occurrence of Neritina cf. N. donovana in the Vigo formation requires two remarks.

1.) The specimen figured by POPENOE & KLEINPELL (1978: plt. 1, figs. 4 and 6) does not belong to that taxon but to Clithon (Clithon) rugata (Récluz, 1842), of which very fine figures have been published by Sowerby (1849: plt. 109, figs. 3-4) and Reeve (1855: plt. 15, figs. 69a-69b).

Clithon rugata is well characterized by its rugose sculpture and it seems to be restricted in its distribution to freshwater streams in the Philippines. It has been found on the islands: Negros (Récluz, 1842: 75), Guimaris (USNM 419513, according to Popenoe & Kleinpell, 1978: text fig. 3, sheet 1) and Luzon (ZMA, ex Wallacea Expedition).

The shells of Neritina donovana Récluz, 1843, on the other hand, are smooth except for fine regular growth lines. The colour pattern of N. donovana (vide Reeve, 1855: plt. 6, figs. 25a-25c) resembles, however, very much the sculptural pattern of Clithon rugata and has most probably caused the erroneous identification.

I agree with von Martens (1879: 154) and consider Neritina donovana as belonging to the polymorphic species group of Clithon (Clithon) diadema (Récluz, 1841). 2.) POPENOE & KLEINPELL (1978: text fig. 3, sheets

1-3) mentioned 51 species from the marls in which Clithon rugata was commonly encountered. A critical study of these 51 taxa revealed that all, except C. rugata, are strictly marine in their way of life. More strikingly, C. rugata is the only fluviatile element among the 141 mollusc species mentioned by Popenoe and Kleinpell from the Vigo formation.

In my opinion it is, therefore, rather doubtful that Clithon rugata belongs really to the fauna of the Vigo formation. I wonder whether it is not possible that C. rugata is actually living in the Bahay River and that some specimens have been washed into the marls cropping out of the banks.

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